No.



9500128

THE DUNKED SHAVES OF AMERICA

TO ALL TO WHOM THESE: PRESENTS SHALL COME:

Tofts Seed, Inc.

TIPES, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OPPICE, IN THE APPLICANTIS, INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF EIGHTEEN YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

ALKALAIGRASS

'Salty'

In Testimone Wherest, I have hereunto set my hand and caused the seal of the Mant Paristy Protection Office to be affixed at the City of Washington, D.C. this thirtieth day of April in the year of our Lord one thousand nine hundred and ninety war.

Mansha J. Commissioner Plant Variety Protection Office

Jan Julistaman

U.S. DEPARTMENT OF AGRICULTURAL MARK SCIENCE DIV APPLICATION FOR PLANT VARIET (INSTRUCTIONS OF	ETING SERVICE VISION Y PROTECT	ON CERTIFICATE	Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).
NAME OF APPLICANT(S) (as it is to appear on the Certificate) Lofts Seed, Inc.		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NO. LRF-92-E1	3. VARIETY NAME Salty
4. ADDRESS (street and no. or R.F.D. no., city, state, ZIP, and country) 347 Elizabeth Ave., Suite 101 Somerset, New Jersey 08873	,	5. PHONE (include area code) 1-800-526-3890 \$08-356-8700 6. FAX (include area code)	FOR OFFICIAL USE ONLY PVPO: NUMBER 9500128 F. DATE
		1-908-560-0884	APRIL 10, 1995
7. GENUS AND SPECIES NAME Alkalaigrass <u>Puccinellia</u> <u>distans</u>	8. FAMILY NAM G1	E (Botanical) Camineae	F Filling and Examination Fee 12525 So £ \$ 125 8
9. CROP KIND NAME (Common Name) Alkalaigrass	~		S Date 8 04/10/95 204/24/91
10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZA Corporation 11. IF INCORPORATED, GIVE STATE OF INCORPORATION New Jersey	TION (corporation, pa	12. DATE OF INCORPORATION Nov. 1948	Cartificate Fee 5 3 0 1 1 1 Date Date
Dr. Richard H. Hurley Lofts Seed, Inc. 347 Elizabeth Ave. Somerset, New Jersey 08873 14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow II a. Exhibit A. Origin and Breeding History of the Variety b. Exhibit B. Statement of Distinctness c. Exhibit B. Statement of Distinctness c. Exhibit C. Objective Description of the Variety d. Exhibit D. Additional Description of the Variety e. Exhibit E. Statement of the Basis of the Applicant's Owner f. Voucher Sample (2,500 viable untreated seeds or for tube g. Filing and Examination Fee (\$2450), made payable to "Tree	rship	verse)	HONE (include area code): 1 – 908–356–8700 IONE (include area code): 1–908–560–0884 IONE (include area code): 1–908–560–0884
15. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY YES (If "yes" answer items 16 and 17 below)	VARIETY NAME ON	·	Section 83(a) of the Plant Variety Protection Act)?
16. DOES THE APPLICANT SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?	17. IF "YES" TO II	EM 16, WHICH CLASSES OF PRODUCTION IN THE REGISTERED	BEYOND BREEDER SEED?
18. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RE YES (If "yes", give names of countries and dates) 9/94 United States	ELEASED, USED, OFI	FERED FOR SALE, OR MARKETED IN THE U.	S. OR OTHER COUNTRIES?
 The applicant(s) declare that a viable sample of basic seed of the varie regulations as may be applicable, or for a tuber propagated variety a tie 	ety will be furnished ssue culture will be	with application and will be replenished u deposited in a public repository and main	pon request in accordance with such
The undersigned applicant(s) is (are) the owner(s) of this sexually repr as required in section 41, and is entitled to protection under the provision Applicant(s) is (alie) informed that false representation herein can jeopa	ons of section 42 o	f the Plant Variety Protection Act.	t the variety is new, distinct, uniform, and stable
SIGNATURE OF APPLICANT (Owner(s.)		SIGNATURE OF APPLICANT (Owner(s))	
AME (Please PrincoType)		NAME (Please Print or Type)	
APACITY OR TITLE FURTH R R V D DATE 1/119	5	CAPACITY OR TITLE	DATE
470 (04-95) Editions of forms LS-470 (31/86), CSSD-470 (5/89), and SD-470 (04-93) :	are to be destroyed.		CONTINUED ON REVERSE

EXHIBIT A, Origin and breeding history of the variety Salty

In Fall 1991, approximately 500 seedlings were established at Lebanon, OR from the variety Fults. In 1991, plants included in development of Salty were collected from Applewood Golf Course, Golden, CO; Arrowhead Golf Club, Littleton, CO; and roadsides of Thorton, CO. It is suspected that the collected plants originated from native plant stands. Attempts were made to collect plants which were dark green in color and had dense, compact growth under mowing pressure. In Spring 1992, twenty of the most attractive plants from the collection and one plant from the variety Fults were moved into pollination isolation. Seed was harvested from nineteen plants, termed pre-breeders seed, and designated Salty or LRF-92-E1. In Fall 1992, a ¾ acre field of Salty was planted in Harrisburg Oregon. After rouging for uniformity, breeders seed was harvested in 1993. Turf plots were planted in Martinsville, NJ. In Fall 1993, a foundation field was planted in Central Washington, with first harvest in 1994.

No objectionable off-type plants or variants have been observed in the reproduction or multiplication of Salty alkalaigrass. Salty has been observed over 4 generations and found to be uniform and stable. No variants or off-types have been observed.

EXHIBIT B, Novelty statement on Salty alkalaigrass.

Salty is Most similar in appearance to Fults. Salty can be distinguished from Fults alkalaigrass by a combination of spaced plant characteristics.

Salty has a darker green leaf color¹ (7.5 GY 4/4, Munsell color chart) than Fults (5GY 4/4, Munsell color chart) in space plants, Lebanon, OR.

Salty is further distinguished from Fults by a mean 2.9 cm shorter panicle height. Salty has a mean 3.2 cm smaller plant diameter than Fults (see Table 2).

¹ In summer 1994, 150 plants of Salty and 125 plants of Fults planted at Lebanon, OR in a replicated design were examined for leaf color. One-hundred forty nine plants of Salty exhibited the Munsell 7.5 GY 4/4 color; 125 plants of Fults exhibited the Munsell 5GY 4/4 color.

EXHIBIT C (Fine Leaved Fescues)

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN & SEED DIVISION
PLANT VARIETY PROTECTION OFFICE
. BELTSVILLE, MARYLAND 20705

OBJECTIVE DESCRIPTION OF VARIETY XENEX KEAYED XEES CHES Alkalaigrass Puccinellia distans TEMPORARY DESIGNATION NAME OF APPLICANT(S) VARIETY NAME. Lofts Seed, Inc. Salty Salty ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) FOR OFFICIAL USE ONLY PVPO NUMBER 347 Elizabeth Ave., Suite 101, Somerset, N.J. 08873 Place the appropriate number that describes the varietal character of this variety in the boxes below. Use leading zeroes when necessary (e.g., 0 | 8 | 9 or 0 9). Characteristics described including numerical measurements, should represent those that are typical for the variety. Measured data should be for SPACED PLANTS. Royal Horticultural Society or any recognized color fan may be used to determine plant colors; designate system used: Describe location of test area, conditions and number of plants used: 1. SPECIES: (With comparison varieties for use below - use varieties within species of application variety) 1 = F, rubra ssp. commutata (Chewings) 11 = Cascade 12.= Highlight 13 = Jamestown 14 = Banner 15 = Barfalla 2 = F, rubra ssp, litoralis (Creeping Red) 21 = Dawson 22 = Starlight 23 = Merlin 24 = Pennlawn 31 = Boreal 3 = F. rubra ssp. rubra (Spreading Red) 32 = Ruby 33 = Fortress 34 = Ensylva 4 = F. ovina (Sheep) 41 = Covar 5 = F. longifolia (Hard) 51 = Durar 52 = Biljart (C-26) 53 = Scaldis 6 = F. tenuifolia (Fine-Leaved Sheep) 61 = Panda 62 = Barok Puccinellia distans 'Fults' 7 = Other (Specify) F.2. CYTOLOGY: 2 8 Chromosome Number Ploidy 1 = diploid 2 = tetraploid 3 = hexaploid 4 = octoploid ADAPTATION: (0 = Not Tested; 1 = Not Adapted; 2 = Adapted) Intermountain; 2 2 Other (Specify) cool-season salty Southeast North Central areas 4. MATURITY: Date First Headed (panicle emergence) Location(s) of Trail(s) Lebanon, Oregon Maturity Class: 1 = Very Early (Covar) 2 = Early (Highlight) 3 = Medium Early (Boreal, Dawson) 4 = Medium Late (Cascade, Ruby) 5 = Late (Jamestown, Agram) 6 = Very Late <u>50%</u> headed 16 May (table 1) Date Headed <u>lst headed 8 May;</u> Days earlier than Maturity same as Comparison Variety APR 10 PIP 131 Days later than 5. PLANT HEIGHT: (At maturity; to top of panicle; Average of 10 tallest culms) N20 (table 2) 50 9 6 mm height Comparison Variety mm taller than **GROWTH HABIT: (Mature)** 2 1 = Erect (Ruby) 2 = Semi-erect (Highlight) 3 = Prostrate (Silvana) 7. RHIZOMES: mm Length mm Width mm Internode length

2 = Weakly Creeping (Dawson)

3 = Strongly Creeping (Boreal)

4 = Very Strongly Creeping (Fortress)

1 = Absent (Highlight)

8. LEAF	BLADE: 950012	8
	Color: 1 = Light Green (Starlight) 2 = Medium Light Green (Highlight) 3 = Medium Dark Green (Rub 4 = Dark Green (Jamestown, Manoir) 5 = Bluegreen (Saphir) 6 = Graygreen (Scaldis) 7 = Other (Specify) Salty = 7.5 GY 4/4: Fults = 5GY 4/4 Munsell color chart	γ, Agra
	Glaucosity (Sowing Year): 1 = Absent (Koket) 2 = Present (Vendome)	
1	Anthocyanin: 1 = Absent 2 = Present Hairs (Basal) 1 = Absent 2 = Present	
	Margins: 1 = Smooth 2 = Semi-rough 3 = Rough	
$\overline{\Box}$	Margin folding (closure): 1 = Rolled inward (closed-Highlight) 2 = Flat (open-Jamestown, Engina)	
	Width class:	
	1 = Very Fine (Agram, Frida) 2 = Fine (Jamestown, Highlight, Banner, Dawson) 3 = Medium Fine (Fortress, Ruby, Scaldis) 4 = Medium Coarse (Engina)	
46.6	mm Length (flag leaf)	
.12	mm Shorter than Fults 0 7 (table 3)	
	Blade length same as	
	mm Longer than	
2 8	mm Width (flag leaf)	
	mm Narrower than	
* . * .	8 lade width same as	
0 2 b	mm Wider than . Eults Oh	·
9. LEAF SH	HEATH:	
2	Anthocyanin (seedling): 1 = Absent (Highlight) 2 = Present (Jamestown, Fortress, Marga)	-
I	Auricle Hairiness: 1 ≠ Absent 2 = Present	
1	Margins: 1 = Open (Highlight) 2 = Closed (Jamestown)	
0. PANICLE	E (Mature plant):	
2	Shape: 1 = Narrow-tapering 2 = Ovate 3 = Oblong 4 = Other (Specify)	
1	Type: ↑ = Open 2 = Intermediate 3 = Compact	
1	Orientation: 1 = Erect 2 = Nodding	
	Branch Pubescence: 1 = Glabrous 2 = Pubescent	
	Anther Color: 1	
	Glume Color (At 50% 1 = Yellowish Green 2 = Green 3 = Bluish Green 4 = Purplish 6 = Other (Specify)	
Teren	flowering):	
6/	mm Length	
910	Shorter than Fults D 7 (table 4)	
	Panicle length same as Comparison Variety	
	mm Longer than	
. PALEA:		
	Hairs (On keels or margins): 1 = Absent (Banner) 2 = Short (Agram, Scaldis, Olds)	
	3 = Long (Rainier, Fortress, Jamestown)	
1		

12. LEMMA	(Matu	e):					9500128
	Hai	s: 1 = Absent (Jamestown)	2 = Several		3 = Many (Highlight)		7500126
2. 1	mm	Lemma Length	•				
	ının.	Shorter than] }				
•	Len	ma length same as	Compa	rison \	/ariety		
	mm	Longer than					
0.576	mm	Lemma Width	- <i>j</i>				
	mm	Narrower than])				
	Lem	ma width same as	Compa	rison V	· /ariety		
	· mm	Wider than] }				
	Awn	s: 1 = Absent 2 = Pr	resent				
	mm	Awn Length			•		
	mm	Shorter than] }				
<u> </u>	Awn	length same as	Compar	ison V	ariety		
	mm	onger than]) .				
13. SEED (W	lith lemi	na & palea):					· · · · · · · · · · · · · · · · · · ·
]	Size Class (g/1000 seed): 1 = < .9g (Biljart, Dawson) 3 = 1.1 - 1.3g (Fortress, Novorubra)			g (Jamestown, Highlight) oreal, Golfrood)		
2 0 9 6]	mg per 1000 seed		- ,			
]	mg per 1000 seed less than		}			
		Seed Weight same as	🔲	}	Comparison Variety		
		mg per 1000 more than	· .	1			
14. DISEASE	INSEC	, AND NEMATODE REACTION (0 = N	ot Touted 1 - C		(1.1. O - D - J - A)		
			ot sested, 1 = 5	uscept	ible, 2 = Resistant):		
	ل	Melting-out Drechslera poae (Helminthosporium vagans)			Stripe rust P. striiformis		
	0	Leaf spot D. siccans			Leaf rust P. poac-nemoralis		
		Net blotch D. dictyoides			P. crandallii		
•		Leaf spot Bipolaris sorokiniana	s		Pythium Blight Pythium ultimun		•
		Brown patch Rhizoctonia solani			Red thread Corticium fusciforme		
	0	Powdery mildew Erysiphe graminis	io gasai		Dollar spot Sclerotinia homoeoca	гра	
		Stripe smut Ustilago striiformis		H	Insect		
	0	F. Patch, Pink snow-mold fiusarium nivale	, comb	H	Nematode		
	0	Fusarium blight F. tricinctum, F. roseum			Other		
· .	0	Gray snow mold Typhula iotana			Other		-
	0	Stem rust Puccinia graminis			Other		
			· · · · · · · · · · · · · · · · · · ·				

15. GIVE VARIETY OR VARIETIES THAT MOST CLOSELY RESEMBLE THE APPLICATION VARIETY. For the following characteristics indicate Degree of Resemblance by placing the column marked, D.R., one of the following numbers:

1 = Application variety is less than comparison variety.

2 = Same As

3 = More than, better, greater, darker, more disease resistant, etc.

CHARACTER	VARIETY	D.R.	CHARACTER	VARIETY	D.R.
Rhizome Length			Growth Habit diameter	Fults	1
Leaf Width (Flag)	Fults	2	Leaf Color	Fults	3
Panicle Color			Panicle Shape		1
Winter Color			Cold Injury		
Shade Tolerance			Heat		
⊕ rought			Disease *		

^{*} Specify each disease evaluated.

16. ADDITIONAL DESCRIPTION: (Use additional sheets as required)

Describe all characteristics that cannot be adequately described in the form above in Exhibit D. Comparative varieties should be used as may be appropriate, such as for disease. Append all comparative trial and evaluation data, including measured characters, environmental, and disease tests.

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EXHIBIT D. Additional description of variety.

Table 1. Date of first heading and date of 50% heading of Salty and Fults alkalaigrass measured at Lebanon, OR, 1994.

Variety	Date first Heading	Date 50% Heading
Salty	May 7a	May 16a
Fults	May 8a	May 16a

^{*}Means followed by the same letter are not significantly different using LSD tests.

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Table 1a. Date of first heading and date of 50% heading of Salty and Fults alkalaigrass measured at Lebanon, OR, 1995.

Variety	Date first Heading	Date 50% Heading	
Salty	May 18	May 25	
Fults	May 19	May 27	

Table 2. Plant height, crown height, and plant height of Salty and Fults alkalaigrass measured at Lebanon, OR, 1994.

Variety	Plant Height	Crown Height cm	Plant Diameter
Salty	59.58b	15.37b	121.32b
Fults	61.97a	18.28a	124.52a

^{*}Means followed by the same letter are not significantly different using LSD tests.

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Table 2a. Plant height, crown height, and plant height of Salty and Fults alkalaigrass measured at Lebanon, OR, 1995.

Variety	Plant Height	Crown Height	Plant Diameter	
		cn	and all the last he had he will be verified to the special part and part an	
Salty	59.75a	31.30b	120.56b	
Fults	62.15a	33.64a	129.28a	

^{*}Means followed by the same letter are not significantly different using LSD tests.

Table 3. Flag leaf widths and lengths and length of second leaf subtending the panicle of Salty and Fults alkalaigrass measured at Lebanon, OR, 1994.

Variety	Fla	ag leaf	Second
	Width	Length	Leaf Length
Salty	3.28a	4.66a	7.33a
Fults	3.26a	4.78a	7.16a

^{*}Means followed by the same letter are not significantly different using LSD tests.

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Table 3a. Flag leaf length and length of second leaf subtending the panicle of Salty and Fults alkalaigrass measured at Lebanon, OR, 1995.

Variety	Flag leaf Length	Second Leaf Length	
Salty	6.47a	7.39a	
Fults	6.31a	7.41a	

^{*}Means followed by the same letter are not significantly different using LSD tests.

Table 4. Panicle widths and lengths of Salty and Fults alkalaigrass measured at Lebanon, OR, 1994.

	Pa	anicle
Variety	Width	Length
	c	m
Salty	16.79a	16.69a
Fults	16.08a	17.63a

^{*}Means followed by the same letter are not significantly different using LSD tests.

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Table 4a. Panicle widths and lengths of Salty and Fults alkalaigrass measured at Lebanon, OR, 1995.

	Par	nicle
Variety	Width	Length
Salty	9.90a	11.83b
Fults	9.97a	12.93a

^{*}Means followed by the same letter are not significantly different using LSD tests.

EXHIBIT E. Statement of the basis of applicant's ownership.

ASSIGNMENT OF SALTY ALKALAIGRASS

WHEREAS, Virginia Lehman, 315 Edgewater Dr., Lebanon, OR, and Richard Hurley, 146 Bonney Court, Bridgewater, NJ 08807, while employed at Lofts Seed, Inc., P.O. Box 146, Bound Brook, NJ 08805, have cooperated in the breeding and development of Salty alkalaigrass.

NOW THEREFORE, IN CONSIDERATION OF ONE DOLLAR (\$1.00) and other valuable considerations made by Lofts Seed, Inc., including those designated in our Agreement dated 29 October 1992 to each of us, we hereby assign unto Lofts Seed, Inc., P.O. Box 146, Bound Brook, NJ 08805 our entire interest in Salty (LRF-92-E1 agrass) alkalaigrass for the United States and any foreign country. The Commissioner, Plant Variety Protection Office is requested to issue the plant variety protection certificate in accordance herewith.

Sworn and subscribed to before me this 10 Day

of

1995.

Notary Public of Oregon

OFFICIAL SEAL CLARISSA A. BJORNSEN NOTARY PUBLIC - OREGON COMMISSION NO.036233
MY COMMISSION EXPIRES JULY 12, 1998

Richard Hurley

Sworn and subscribed to before me this // Day

Notary Public of New Jersey

PATRICIA E. OLIVO NOTARY PUBLIC OF NEW JERSEY My Commission Expires Aug. 21, 1997

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